STIC Search Report
EIC 2100

STIC Database Tracking Number: 180225

TO: Ankur Gogia **Location: RND 2B59** **Art Unit: 2187** **Wednesday, February 22, 2006** **Case Serial Number: 10/677114**	**From: Lucy Park** **Location: EIC 2100** **RND-4B11** **Phone: 571-272-8667** **lucy.park@uspto.gov**

Search Notes

Dear Examiner Gogia,

Here are the search results for your Fast & Focused search request on case number 10/677114. I flagged the results that looked most relevant, but please review all of the results. Please let me know if you have any questions about these or if you need any further information.

Lucy

STIC EIC 2100 Search Request Form

180225

Today's Date: 2/22/06

What date would you like to use to limit the search?

Priority Date: 10/2/02 Other:

Name Ankur Gogia

AU 2187 Examiner # 81536

Room # 2B59 Phone x24166

Serial # 10/677,114

Format for Search Results (Circle One):

(PAPER) DISK EMAIL

Where have you searched so far?

(USP) (DWPI) (EPO) (JPO) ACM (IBM TDB)

IEEE INSPEC SPI Other _____

Is this a "Fast & Focused" Search Request? (Circle One) (YES) NO

A "Fast & Focused" Search is completed in 2-3 hours (maximum). The search must be on a very specific topic and meet certain criteria. The criteria are posted in EIC2100 and on the EIC2100 NPL Web Page at http://ptoweb/patents/stic/stic-tc2100.htm.

What is the topic, novelty, motivation, utility, or other specific details defining the desired focus of this search? Please include the concepts, synonyms, keywords, acronyms, definitions, strategies, and anything else that helps to describe the topic. Please attach a copy of the abstract, background, brief summary, pertinent claims and any citations of relevant art you have found.

Scheduling access to a tape drive

Given a target ~~record number~~ file, determine the blocks that make up the file. Locate the track that contains each block.

Once the tracks for all blocks are known, sort the read/write order to efficiently access the tape drive.

Tape is accessed in serpentine order such that writes done from beginning to end, then end to beginning and so on.

want to access all blocks in 1 direction first & 2nd direction after that

track: wrap, ~~segment, sector~~

block: record, segment, sector

STIC Searcher Lucy Park Phone 28667

Date picked up 2/22/06 Date Completed 2/22/06

STIC Search

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File   2:INSPEC 1898-2006/Feb W2
         (c) 2006 Institution of Electrical Engineers
File   6:NTIS 1964-2006/Feb W1
         (c) 2006 NTIS, Intl Cpyrght All Rights Res
File   8:Ei Compendex(R) 1970-2006/Feb W2
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         (c)2006 Japan Science and Tech Corp(JST)
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         (c) 2006 The HW Wilson Co.
File 111:TGG Natl.Newspaper Index(SM) 1979-2006/Feb 14
         (c) 2006 The Gale Group
File 144:Pascal 1973-2006/Jan W5
         (c) 2006 INIST/CNRS
File 239:Mathsci 1940-2006/Mar
         (c) 2006 American Mathematical Society
File 256:TecInfoSource 82-2006/Feb
         (c) 2006 Info.Sources Inc
? ds

Set     Items   Description
S1     219118   TAPE? ? OR LINEAR??(3N)STORAGE OR DLT OR SDLT
S2       3872   SCHEDUL???(3N)(READ??? OR QUERY??? OR QUERIE? ? OR ACCESS?-
                ??)
S3      15691   SERPENTIN?
S4      56415   (FIRST OR 1ST OR ONE OR SAME)(3N)DIRECTION? ?
S5      88194   (SECOND OR 2ND OR TWO OR NEXT OR OTHER OR ANOTHER OR OPPOS-
                ITE OR SWITCH???)(3N)DIRECTION? ?
S6    5006062   SORT??? OR ORDER???
S7      28549   S3 OR (S4 AND S5)
S8          1   S1 AND S2 AND S7 AND S6
S9         39   S1 AND S2
S10        26   RD  (unique items)
S11        25   S10 NOT S8
S12        21   S11 NOT PY=2003:2006
S13         2   S2 AND S7
S14         0   S13 NOT (S8 OR S12)
S15        12   S2 AND (S3 OR S4 OR S5)
S16         0   S14 NOT (S8 OR S12)
S17     51330   (EFFICIEN??? OR FAST?? OR SPEED? ? OR OPTIMI?)(3N)(READ???
                OR QUERY??? OR QUERIE? ? OR ACCESS???)
S18       395   S2 AND S17
S19        10   S18 AND SORT???
S20        10   S19 NOT (S8 OR S12)
S21         7   RD  (unique items)
S22         5   S21 NOT PY=2003:2006
S23        38   S2 AND SORT???
S24        28   S23 NOT (S8 OR S12 OR S20)
S25        20   RD  (unique items)
S26        17   S25 NOT PY=2003:2006
```

STIC Search

File 348:EUROPEAN PATENTS 1978-2006/Feb W02
(c) 2006 European Patent Office
File 349:PCT FULLTEXT 1979-2006/UB=20060216,UT=20060209
(c) 2006 WIPO/Univentio

Set	Items	Description
S1	159214	TAPE? ? OR LINEAR??(3N)STORAGE OR DLT OR SDLT
S2	3463	SCHEDUL???(3N)(READ??? OR QUERY??? OR QUERIE? ? OR ACCESS?-??)
S3	12407	SERPENTIN?
S4	216205	(FIRST OR 1ST OR ONE OR SAME)(3N)DIRECTION? ?
S5	262517	(SECOND OR 2ND OR TWO OR NEXT OR OTHER OR ANOTHER OR OPPOSITE OR SWITCH???)(3N)DIRECTION? ?
S6	1377670	SORT??? OR ORDER???
S7	110271	S3 OR S4(S)S5
S8	2	S1(S)S2(S)S7(S)S6
S9	10	S1(S)S2(S)S7
S10	8	S9 NOT S8
S11	8	S10 NOT AD=20021002:20060222/PR
S12	11	S1(S)S2(S)(S3 OR S4 OR S5)
S13	4	S12 NOT S11
S14	52	S1(S)S2
S15	780086	BLOCK? ? OR RECORD? ? OR SEGMENT? ? OR SECTOR? ?
S16	181472	TRACK? ? OR WRAP? ?
S17	12	S14(S)S15(S)S16
S18	9	S17 NOT (S8 OR S11 OR S13)
S19	7	S18 NOT AD=20021002:20060222/PR
S20	7	S14(S)SORT???
S21	3	S20 NOT (S8 OR S11 OR S13 OR S19)
S22	21	S2(S)S7
S23	7	S22 AND IC=G06F
S24	4	S23 NOT (S8 OR S11 OR S13 OR S19 OR S21)
S25	56	S2(S)(S3 OR S4 OR S5)
S26	40	S25 NOT (S8 OR S11 OR S13 OR S19 OR S21 OR S23)
S27	17	S26 AND IC=G06F
S28	17	S27 NOT AD=20021002:20060222/PR

STIC Search

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File 347:JAPIO Nov 1976-2005/Oct(Updated 060203)
         (c) 2006 JPO & JAPIO
File 350:Derwent WPIX 1963-2006/UD,UM &UP=200612
         (c) 2006  Thomson Derwent

Set     Items   Description
S1     418759   TAPE? ? OR LINEAR??(3N)STORAGE OR DLT OR SDLT
S2       1196   SCHEDUL???(3N)(READ??? OR QUERY??? OR QUERIE? ? OR ACCESS?-
                ??)
S3       5709   SERPENTIN?
S4     117464   (FIRST OR 1ST OR SAME)(3N)DIRECTION? ?
S5     226535   (SECOND OR 2ND OR NEXT OR OTHER OR ANOTHER OR OPPOSITE OR -
                SWITCH???)(3N)DIRECTION? ?
S6     754568   SORT??? OR ORDER???
S7      41486   S3 OR (S4 AND S5)
S8          0   S1 AND S2 AND S7 AND S6
S9          0   S1 AND S2 AND S7
S10         0   S1 AND S2 AND (S3 OR S4 OR S5)
S11        12   S1 AND S2
S12        10   S11 NOT AD=20021002:20060222/PR
S13         0   S2 AND S7
S14         3   S2 AND (S3 OR S4 OR S5)
S15         4   S1 AND S2 AND S6
S16   1754884   BLOCK? ? OR RECORD? ? OR SEGMENT? ? OR SECTOR? ?
S17    274832   TRACK? ? OR WRAP? ?
S18      7827   S1 AND S16 AND S17
S19     30730   (EFFICIENT?? OR FAST?? OR SPEED? ?)(3N)(READ??? OR QUERY???
                OR QUERIE? ? OR ACCESS???)
S20        61   S18 AND S19
S21         0   S20 AND SCHEDUL???
S22         3   S20 AND (S3 OR S4 OR S5)
S23         3   S22 NOT (S12 OR S14 OR S15)
```

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Citations: the Modeling and Performance Characteristics of a ...
The current simulation results assume a **tape drive** read rate of 1.5MB s and a ... For example for **serpentine** tapes, the **scheduling** policies developed by ...
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Scheduling Non-Contiguous **Tape** Retrievals - Hillyer, Silberschatz ...
... and Performance Characteristics of a **Serpentine Tape Drive** - Hillyer, ... **Scheduling** noncontiguous **tape** retrievals. In Proceedings from Fifteenth IEEE ...
citeseer.ist.psu.edu/hillyer98**scheduling**.html - 20k - Cached - Similar pages
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[PDF] 1 Introduction
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In 4] a **serpentine tape drive** is studied under model-driven simulation in order ... **SORT**. SCAN. SLTF. Figure 8: **Tape** Libraries ZONED. 5.2. I/O **Scheduling** in ...
oswinds.csd.auth.gr/papers/jca01.pdf - Similar pages

[PDF] Improving the Access Time Performance of **Serpentine Tape** Drives
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random access I/O requests for a **serpentine tape drive** can. be stated as follows: ... Time usage (s). Number of requests in **schedule**. READ. FIFO. **SORT** ...
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Improving the Access Time Performance of **Serpentine Tape** Drives
The problem of **scheduling** such random access I/O requests for a **serpentine tape drive** can be stated as follows:. Given a list of I/O requests and an initial ...
www.idi.ntnu.no/grupper/db/research/ tech_papers/ICDE99/icde99/icde99.html - 55k - Cached - Similar pages
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[PS] **Scheduling** Non-Contiguous **Tape** Retrievals Bruce K. Hillyer, Avi ...
File Format: Adobe PostScript - View as HTML
As with other **serpentine tape** units, it is difficult topredict the ... The **SORT schedule** is formed by **sorting** the requested logical block numbers into ...
www.bell-labs.com/user/hillyer/papers/mss98.ps - Similar pages

[PDF] White Papers - Case Study: Backing Exchange Server
File Format: PDF/Adobe Acrobat - View as HTML
Because of its high velocity, a linear **tape drive** needs more ... an affordable **tape** technology is often a confusing proposition: **sorting** through ...
www.spectralogic.com/ index.cfm?fuseaction=home.displayFile&DocID=151 - Similar pages

[PDF] **Scheduling** Queries for **Tape**-Resident Data
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We use the **SORT** algorithm described in [9] for I/O **scheduling** when fetching ... acteristics of a **serpentine tape drive**. In Proceedings of 1996 ACM ...
www.ece.northwestern.edu/ ~choudhar/publications/pdf/MorCho00A.pdf - Similar pages

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tape scheduling algorithms Search Advanced Search Preferences

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Hierarchical **Scheduling Algorithms** for Near-Line **Tape** Libraries ...
Robotic **tape** libraries RTLs currently enjoy a prominent place in the storage market, with a reported average annual growth rate approaching primarily due to ...
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Citations: **scheduling** in online tertiary storage - Hillyer ...
Different **scheduling algorithms** are applied on various **tape** libraries configurations in order to show how they impact the optimal data placement strategies. ...
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Journal of the ACM -- 1981
New real-time simulations of multihead **tape** units. Journal of the ACM , 28(1):166-180, ...
On optimal **scheduling algorithms** for time-shared systems. ...
theory.lcs.mit.edu/~jacm/jacm81.html - 21k - Cached - Similar pages

Journal of the ACM -- 1975
A note on **tape**-bounded complexity classes and linear context-free grammars. ... Analysis of several task-**scheduling algorithms** for a model of ...
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[PS] "Words" to PODS talk: Efficently sequencing **tape**-resident jobs ...
File Format: Adobe PostScript - View as HTML
List **scheduling algorithms** are low complexity **algorithms**, O(n log n), since they are sort ... To conclude, we studies **scheduling** of **tape** resident jobs. ...
www.cs.nyu.edu/~shriver/ bell-labs/talks/pods99-talk-words.ps - Similar pages

Task **scheduling** for **tape**-resident jobs
We have looked at into the problem of **scheduling** science **algorithms** for the NASA EOS data. A subset of the tasks have data that begins on **tape**, ...
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The disk-**scheduling algorithm** should be written as a separate module of the ... Access on **tape** requires winding the **tape** reels until the selected block ...
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File Format: Microsoft Powerpoint 97 - View as HTML
The disk-**scheduling algorithm** should be written as a separate module of ... Usually the **tape** drive is reserved for the exclusive use of that application. ...
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Journal of the ACM -- 1975
Queueing analysis of the **scan** policy for moving-head disks. ... Analysis of several task-**scheduling algorithms** for a model of multiprogramming computer ...
theory.lcs.mit.edu/~jacm/jacm75.html - 21k - Cached - Similar pages

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Selecting a Disk-**Scheduling Algorithm**. SSTF is common and has a natural appeal; **SCAN** and C-**SCAN** perform better for systems that place a heavy load on the ...
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Glossary
Scanners come in a number of types, including flatbed (**scan** head passes over a ... Acronym for Secure Hash **Algorithm**. A technique that computes a 160-bit ...
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I/O **Scheduling** in a Single **Tape**. For the validation of the performance of SORT, **SCAN** and SLF **algorithms** when implemented on ...
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> Improving the Access Time Performance of Serpentine **Tape** Drives
> We propose a new **scheduling algorithm**, Multi-Pass **Scan** Star (MPScan*), which makes good utilization of the streaming capability of the **tape** drive and avoids ...
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Citations: **scheduling** in online tertiary storage - Hillyer ...
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> Citations: Disk **scheduling** revisited - Selzer, Chen, Ousterhout ...
> For reference, Figure 5 compares these four disk **scheduling algorithms** for the Atlas 10K disk ... For **tape** drives, we characterize load and eject times, ...
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